

Table 1: Are the germinal center B cell, proliferation, lymph node and T cell gene expression signatures independent features of the DLBCL specimens?

To address this question, we defined a signature "average" for each DLBCL case by computing the geometric average of the expression ratios for each gene in the signature. For each different signature, this process produced an array of signature averages derived from each DLBCL. Table 1 presents the Pearson correlation coefficients that were computed from each pairwise comparison of these arrays of signature averages. The proliferation and T cell signatures were moderately anti-correlated while the T cell and lymph node signatures were positively correlated. Strikingly, though, the germinal center signature was independent of the proliferation, lymph node and T cell signatures.

Table 1
Correlation of Gene Expression Signatures in DLBCL

<u>Gene Expression Signature</u>	<u>Germinal Center B cell</u>	<u>Proliferation</u>	<u>Lymph N</u>
Germinal Center B cell	1		
Proliferation	-0.27	1	
Lymph Node	-0.13	-0.22	1
T cell	0.00	-0.64	0.64

Presented are the Pearson correlation coefficients for each pairwise comparison of average gene expression signatures across all DLBCL clinical samples.

Table 2: Which of the gene expression signatures evident in DLBCLs predict clinical outcome?

Table 2 presents correlation coefficients derived from comparisons of various average gene expression signatures (see legend to Table 1) and overall length of survival in DLBCL. The proliferation, T cell and lymph node signatures did not strongly correlate with overall survival while the germinal center B cell signature did, with high statistical significance ($p < 0.0048$). Thus, by this measure, the proliferation rate and the extent of the host response to the tumor had less influence on clinical outcome than the underlying differentiation stage of the malignant cell. The influence of the germinal center B cell signature on overall survival in DLBCL by this analysis is consistent with the findings in Figure 5.

Table 2
Relationship of Gene Expression Signatures To Overall Survival in DLBCL

<u>Gene Expression Signature</u>	<u>Correlation Coefficient</u>	<u>Probability</u>
Germinal Center B Cell	0.44	0.0048
Proliferation	-0.08	0.61
Lymph Node	-0.15	0.37
T Cell	0.07	0.67

Presented are the Pearson correlation coefficients and probability measures for the comparison of each average gene expression with overall time of survival across all DLBCL patients studied.